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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,479	07/28/2003	Sergey Brin	0026-0149	7460
44989 7590 06/24/2009 HARRITY & HARRITY, LLP 11350 Random Hills Road SUITE 600 FAIRFAX, VA 22030				
EXAMINER HARPER, LEON JONATHAN				
ART UNIT		PAPER NUMBER		
2166				
MAIL DATE		DELIVERY MODE		
06/24/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/629,479

## Applicant(s)

BRIN ET AL.

## Examiner

LEON HARPER

## Art Unit

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 37-45, 49, 51-57, 63-74 and 77-89 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 37-45, 49, 51-57, 63-74, 77-89 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ ~~Notice of Informal Patent Application~~
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed on 4/7/2009 has been entered. Claims 37, 39, 80 and 85 have been amended. No new claims have been added or cancelled. Accordingly, claims 37-45, 49, 51-57, 63-74, and 77-89 are pending in this office action.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 37-45, 49, 51-57, 63-74 and 77-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 20030212666 (hereinafter Basu) in view of US 6243713 (hereinafter Nelson).

As for claim 37 Basu discloses: receiving by a network interface or an input device of the computer system, a search query comprising a plurality of search terms from a user (See figure 3 #302 and paragraph 0032), where the search query further includes a plurality of user-selected operators associated with one of the search terms and where the plurality of operators comprise a same operator repeated multiple times (See paragraph 0033) of the search query (See paragraph 0043); broadening by a processor of the computer system, the one of the search terms based on the plurality of user-selected operators to produce a broadened search query; (See paragraphs, 0033, 0038 and 0041). Where broadening the one of the search term comprises (See paragraph 0033 and 0038). and executing by the processor a search using the broadened search query (See paragraph 0041).

Basu however does not explicitly disclose broadening the one of the search terms to an extent determined by a number of times the same operator is repeated; however does disclose broadening the one of the search terms to an extent determined by a number of times the same operator is repeated; (See column 7 lines 15-25). It would have been obvious to an artisan of ordinary skill in the pertinent art at the time the invention was made to have incorporated the teaching of Nelson into the system of Basu. The modification would have been obvious because the two references are concerned with the solution to problem query broadening and data retrieval, therefore there is an implicit motivation to combine these references. In other words, the ordinary skilled artisan, during his/her quest for a solution to the cited problem, would look to the

cited references at the time the invention was made. Consequently, the ordinary skilled artisan, would have been motivated to combine the cited references since Nelsons teaching would enable users of the Basu system to explicitly have operators different from other operator along with the ability to index results and database data..

As for claim 38 the rejection of claim 37 is incorporated and further Basu discloses: where the search query further includes a user-selected delimiter associated with another one of the search terms that indicates that the other one of the search terms should not be broadened (See paragraph 0038).

As for claim 39 Basu discloses: receiving by a network interface or an input device of the computer system a search query comprising a plurality of search terms; broadening, by a processor of the computer system one of the plurality of search terms; excluding by the processor the broadened one of the plurality of search terms from the search query; executing by the processor a search based on the search query after excluding the broadened one of the plurality of search terms provide search results; and evaluating by the processor the search results relative to the excluded search term using categorical or clustered distinctions (See paragraphs 0043 and 0004).

As for claim 40 the rejection of claim 37 is incorporated and further Basu discloses: where broadening the one of the search terms comprises: determining a

meaning associated with the first one of the search terms (See paragraph 0004 and 0011).

As for claim 41 the rejection of claim 40 is incorporated and further Basu discloses: where broadening the first one of the search terms comprises: determining a related concept based on the meaning (See paragraph 0004 and 0011).

As for claim 42 the rejection of claim 37 is incorporated, and further Basu discloses: where broadening the one of the search terms comprises: modifying, replacing, supplementing, removing or restating the one of the search terms (See paragraph 0034).

As for claim 43 the rejection of claim 37 is incorporated and further Basu discloses: where broadening the one of the search terms comprises: selecting a broadening search term associated with the one of the search terms from a set of words having a synonymous, alternate spelling, common root, or similar semantic meaning (See paragraph 0041).

As for claim 44 the rejection of claim 37 is incorporated and further Basu discloses presenting at least one broadened search term associated with the first one of the search terms as at least one of a static list, a menu of selectable search terms, a set

of checkboxes or a list of selectable search terms; and receiving a selection from the presented at least broadened search term (See paragraph 0038).

As for claim 45 the rejection of claim 37 is incorporated and further Basu discloses: where broadening the one of the search terms comprises: presenting at least one broadened search characteristic associated with the one of the search terms as a hyperlink; and forming the broadened search query responsive to a selection of the hyperlink by the user (See paragraph 0038).

As for claim 49 Basu discloses: one or more instructions for receiving a search query comprising a plurality of search terms from a user, wherein the search query includes multiple symbols which define a user-assigned strength of broadening associated with one of the search terms of the search query (See paragraph 0038); one or more instructions for broadening the one of the search terms to an extent determined by the user-assigned strength to produce a broadened search query where a number of the multiple symbols determines the extent to which the one of the search terms is broadened ; and one or more instructions for executing a search based on the broadened search query (See paragraph 0038).

As for claim 51 the rejection of claim 49 is incorporated and further Basu discloses: where the search query further includes a user-selected delimiter associated

with another one of the search terms that indicates that the other one of the search terms should not be broadened (See paragraph 0038).

As for claim 52 the rejection of claim 49 is incorporated and further Basu discloses: where the one or more instructions for broadening the one of the search terms comprises: one or more instructions for determining a meaning associated with the one of the search terms (See paragraph 0004 and 0011).

As for claim 53 the rejection of claim 52 is incorporated and further Basu discloses: where the one or more instructions for broadening the one of the search terms comprises: one or more instructions for determining a related concept based on the meaning (See paragraph 0004 and 0011).

As for claim 54 the rejection of claim 49 is incorporated and further Basu discloses: where the one or more instructions for broadening the first one of the search terms comprises: modifying, replacing, supplementing, removing or restating the first one of the search terms (See paragraph 0034).

As for claim 55 the rejection of claim 49 is incorporated and further Basu discloses: where the one or more instructions for broadening the one of the search terms comprises: one or more instructions for selecting a broadening search term



associated with the one of the search terms from a set of words having a synonymous, alternate spelling, common root, or similar semantic meaning (See paragraph 0041).

As for claim 56 the rejection of claim 49 is incorporated and further Basu discloses: one or more instructions for presenting at least one broadened search term associated with the one of the search terms as at least one of a static list, a menu of selectable search terms, a set of checkboxes or a list of selectable search terms; and one or more instructions for receiving, from the user a selection from the presented at least broadened search term from the user (See paragraph 0038)..

As for claim 57 the rejection of claim 49 is incorporated and further Basu discloses: where the one or more instructions for broadening the one of the search terms comprises: one or more instructions for presenting at least one broadened search characteristic associated with the first one of the search terms as a hyperlink; and one or more instructions for forming the broadened search query responsive to a selection of the hyperlink by the user (See paragraph 0038).

As for claim 60 the rejection of claim 58 is incorporated and further Nelson discloses: where the search query further includes a user-selected delimiter associated with a second one of the search terms that indicates that the second one of the search terms should not be broadened and where the user-selected delimiter comprises a second symbol that is different than the first symbol (See figure 11a).It would have been

obvious to an artisan of ordinary skill in the pertinent at the time the invention was made to have incorporated the teaching of Nelson into the system of Basu. The modification would have been obvious because the two references are concerned with the solution to problem query broadening and data retrieval , therefore there is an implicit motivation to combine these references. In other words, the ordinary skilled artisan, during his/her quest for a solution to the cited problem, would look to the cited references at the time the invention was made. Consequently, the ordinary skilled artisan, would have been motivated to combine the cited references since Nelsons teaching would enable users of the Basu system to explicitly have operators different from other operator along with the ability to index results and database data.

As for claim 61 the rejection of claim 58 is incorporated and further Nelson discloses: where the at least one user-selected operator comprises a plurality of operators and where the plurality of operators comprise the first symbol repeated multiple times (See column 7 lines 15-25). It would have been obvious to an artisan of ordinary skill in the pertinent at the time the invention was made to have incorporated the teaching of Nelson into the system of Basu. The modification would have been obvious because the two references are concerned with the solution to problem query broadening and data retrieval , therefore there is an implicit motivation to combine these references. In other words, the ordinary skilled artisan, during his/her quest for a solution to the cited problem, would look to the cited references at the time the invention was made. Consequently, the ordinary skilled artisan, would have been motivated to

combine the cited references since Nelsons teaching would enable users of the Basu system to explicitly have operators different from other operator along with the ability to index results and database data.

As for claim 63 the rejection of claim 49 is incorporated and further Nelson discloses: where the first symbol comprises one of a graphical or character symbol (See figure 11b).

As for claim 64 the rejection of claim 51 is incorporated and further Nelson discloses: where the user-selected delimiter comprises a second symbol that is different than the first symbol (See column 7 lines 25-35).

Claims 65-74 are system claims corresponding to the method of claims 1,38,64,40-45,61,63 respectively and are thus rejected for the same reasons as set forth in the rejection of claims 1,38,64,40-45,61,63.

As for claim 77 the rejection of claim 39 is incorporated and further discloses: determining a meaning associated with the one of the plurality of search terms and determining a related concept based on the meaning.

As for claim 78 the rejection of claim 39 is incorporated and further Basu discloses: modifying, replacing, supplementing, removing or restating the one of the plurality of search terms (See paragraph 0043).

As for claim 79 the rejection of claim 39 is incorporated and further Basu discloses: selecting a broadening search term associated with the one of the plurality of search terms from a set of words having a synonymous, alternate spelling, common root, or similar semantic meaning (See paragraphs 0033, 0034)

As for claim 80 BASU discloses: : receiving by a network interface or an input device of the computer system, a search query comprising a plurality of search terms from a user (See figure 3 #302 and paragraph 0032), where the search query further includes a plurality of user-selected operators associated with one of the search terms and where the plurality of operators comprise a same operator repeated multiple times (See paragraph 0033) of the search query (See paragraph 0043); broadening by a processor of the computer system, the one of the search terms based on the plurality of user-selected operators to produce a broadened search query; (See paragraphs, 0033, 0038 and 0041). Where broadening the one of the search term comprises receiving by the network interface or the input device, selection of a subset of hyperlinks of the set of hyperlinks to select a subset of the broadened search terms; (See paragraph 0033 and 0038).and executing by the processor a search using the broadened search query (See paragraph 0041).

Basu however does not explicitly disclose broadening the one of the search terms to an extent determined by a number of times the same operator is repeated; however does disclose broadening the one of the search terms to an extent determined by a number of times the same operator is repeated; (See column 7 lines 15-25). It would have been obvious to an artisan of ordinary skill in the pertinent at the time the invention was made to have incorporated the teaching of Nelson into the system of Basu. The modification would have been obvious because the two references are concerned with the solution to problem query broadening and data retrieval ,therefore there is an implicit motivation to combine these references. In other words, the ordinary skilled artisan, during his/her quest for a solution to the cited problem, would look to the cited references at the time the invention was made. Consequently, the ordinary skilled artisan, would have been motivated to combine the cited references since Nelsons teaching would enable users of the Basu system to explicitly have operators different from other operator along with the ability to index results and database data..

Claims 81-84 are method claims corresponding to the method of claims 77-79 respectively and are thus rejected for the same reasons as set forth in the rejection of claims, 77-79.

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Claims 85-89 are method claims corresponding to the method of claims 1, 77-79 respectively and are thus rejected for the same reasons as set forth in the rejection of claims, 1, 77-79.

***Response to Arguments***

Applicant's arguments filed 4/7/09 have been fully considered but they are not persuasive.

**Applicant argues:**

For example, BASU and NELSON do not disclose or suggest receiving, by a network interface or an input device of the computer system, a search query comprising a plurality of search terms from a user, where the search query further includes a plurality of user-selected operators associated with one of the search terms of the search query and where the plurality of operators comprise a same operator repeated multiple times, as recited in claim 37. The Examiner relies on paragraph [0033] and [0043] of BASU for allegedly disclosing this feature (Office Action, p. 3). Applicants disagree with the Examiner's interpretation of BASU. This section of BASU discloses that a query may be subjective or objective. For example, the query "sunset" is an abstract objective query and the query "beautiful evening" is an abstract subjective query. This section of BASU discloses searching for subjective and objective queries, learning a user's preferences through user feedback, adapting search results to the user's definition of subjective concepts. This section of BASU does not disclose or suggest an operator associated with a search term of a search query, let alone a same operator repeated multiple times. Therefore, this section of BASU does not disclose or suggest receiving, by a network interface or an input device of the computer system, a search query comprising a plurality of search terms from a user, where the search query further includes a plurality of user-selected operators associated with one of the search

terms of the search query and where the plurality of operators comprise a same operator repeated multiple times, as recited in claim 37.

**Examiner responds:**

Examiner is not persuaded. Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. Interpretation of Claims- Broadest Reasonable Interpretation: During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969). In this case as claimed BASU does in fact disclose where the search query further includes a plurality of user-selected operators associated with one of the search terms of the search query and where the plurality of operators comprise a same operator repeated multiple times. A broadening that is done in the BASU reference is based on user preferences (See paragraph 0033) this is the case since while the user submits a query based on objective measures, the subjective measures are added in order to create a searching situation particular to each user (See paragraph 0033). Paragraph 0043 discloses that creating a search situation particular to each user means that the queries are expanding by using sub-queries whether they be distinct or not



distinct (See paragraph 0043). In fact paragraph 0045 goes on to further only disclose an addition of terms (See figure 6's illustration).

**Applicant argues:**

Furthermore, BASU and NELSON do not disclose or suggest broadening, by a processor of a computer system, one of search terms based on a plurality of user-selected operators to produce a broadened search query, where broadening the one of the search terms comprises broadening the one of the search terms to an extent determined by a number of times the same operator is repeated, as recited in claim 37. The Examiner admits that BASU does not disclose this feature and relies on col. 7, lines 15-25 of NELSON for allegedly disclosing this feature (Office Action, p. 3). Applicants disagree with the Examiner's interpretation of NELSON. This section of NELSON discloses that an optional process to increase the robustness of a multimedia retrieval pipeline is to add type-specific query tokens to any or all components that are in a query. For example, additional tokens may be used to represent other words similarly spelled to query keywords, or that have similar meanings, or other images of similar shape, color, or texture. This query expansion can be done by default

**Examiner responds:**

Examiner is not persuaded. Initially examiner notes that one cannot show nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case Nelson discloses: adding to a query based on the number of terms or tokens in the original query (See Nelson column 7 lines 15-20). Moreover the "Test of obviousness is not whether features of secondary reference may be bodily incorporated into primary reference's structure, nor whether claimed invention is expressly suggested in any one or all of references; rather, test is what combined teachings of references would have suggested to those of ordinary skill in art." *In re Keller, Terry, and Davies*, 208 USPQ 871 (CCPA 1981).

**Applicant argues:**

For example, BASU and NELSON do not disclose or suggest excluding, by a processor, a broadened one of the plurality of search terms from a search query, as recited in claim 39. The Examiner relies on paragraphs [0043] and [0004] of BASU for allegedly disclosing this feature (Office Action, p. 4). Applicants disagree with the Examiner's interpretation of BASU. Paragraph [0043] of BASU was reproduced above. This section of BASU discloses that a query expansion operation may be defined by the user or developed by the system through user interaction. The query to sub-query expansion may be one-to-one, one-to-many, many-to-one, or many-to-many. An example of a many-to-many query is shown in Fig. 4 of BASU, which depicts the query "outdoor" mapped to the sub-queries "trees" and "sky" and the query "beach" mapped to sub-queries "sky" and "sand."

**Examiner responds:**

Examiner is not persuaded. Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. Interpretation of Claims- Broadest Reasonable Interpretation: During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969). In this case as claimed BASU does in fact disclose where the search query

further includes a plurality of user-selected operators associated with one of the search terms of the search query and where the plurality of operators comprise a same operator repeated multiple times. A broadening that is done in the BASU reference is based on user preferences (See paragraph 0033) this is the case since while the user submits a query based on objective measures, the subjective measures are added in order to create a searching situation particular to each user (See paragraph 0033). Paragraph 0043 discloses that creating a search situation particular to each user means that the queries are expanding by using sub-queries whether they be distinct or not distinct (See paragraph 0043). In fact paragraph 0045 goes on to further disclose an addition of terms (See figure 6's illustration).

**Applicant argues:**

Nevertheless, Applicants submit that BASU and NELSON, whether taken alone or in any reasonable combination, do not disclose or suggest the above-noted feature of claim 80. For example, in rejecting claim 45, the Examiner relies on paragraph [0038] of BASU for allegedly disclosing "presenting at least one broadened search characteristic associated with the one of the search terms as a hyperlink; and forming the broadened search query responsive to a selection of the hyperlink by the user" (Office Action, p. 6). Applicants submit that this section (or any other section) of BASU does not disclose or suggest the above-noted feature of claim 80.

**Examiner responds:**

Examiner is not persuaded. Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. Interpretation of Claims- Broadest Reasonable Interpretation: During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969). In this case any time a user is in charge or is able to make the selection to broaden a search that user is selecting a link which does in fact disclose presenting at least one broadened search characteristic associated with the one of the search terms as a hyperlink; and forming the broadened search query responsive to a selection of the hyperlink by the user" (See BASU paragraph 0042).

### **Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEON HARPER whose telephone number is (571)272-0759. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*LJH*  
*Leon J. Harper*  
*June 19, 2009*

/Hosain T Alam/  
Supervisory Patent Examiner, Art Unit 2166